

# **Maxillary Midline Diastema Closure with Overjet Correction Using iSmile Aligners**

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## **Introduction**

Maxillary midline diastemas are among the most common esthetic complaints among patients of all ages. Many innovative treatment approaches have been proposed for closure of midline diastemas. Among these approaches is the use of clear aligners to close the gap and correct the overjet frequently associated with it.

This case study presents the management of maxillary midline diastema using iSmile clear aligners to restore a smile that is both aesthetically and functionally satisfactory to the patient.

## **Case Presentation and Administration:**

A 52-year-old female patient presented to the dental office complaining of the presence of gaps between her upper and lower teeth, particularly in between the 2 front teeth.

Upon examination, the maxillary arch showed a large midline diastema with spacing between the lateral incisors and canines and a slight overjet in the central incisors (Figure 1A,B). The mandibular arch also showed spacing between the lateral incisors and canines on both the right and left sides (Figure 1A).



**Figure 1:** Clinical picture showing the patient's upper and lower teeth featuring a midline diastema and spacing between the upper incisors, spacing between the lower lateral incisors and canines, (A) and slight overjet of the upper incisors (B).

## **Case Planning**

The treatment objectives using iSmile clear aligners were to close all diastemas in the maxillary and mandibular arches and to reduce the overjet of the upper central incisors, restoring the proper occlusal relationship between the 2 arches.

Diastema closure in the anterior teeth of the maxillary and mandibular arches was achieved by retraction and ratiocination of the upper and lower anterior teeth to allow up righting and space closure. The patient was instructed to wear the aligners full

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After the treatment period was completed, the patient was placed on a retainer regimen to prevent relapse.

### **Final Result:**

The patient's dentition showed closed upper and lower arch diastemas (Figure 2A). The overjet in the upper arch was also corrected, restoring proper occlusion (Figure 3).



**Figure 2:** Clinical picture showing closure of diastemas in the upper and lower teeth (2A) and reduction of overjet in the upper incisors (2B).

### **Conclusion:**

Correction of midline diastemas and overjet using iSmile aligners demonstrated satisfactory results. The iSmile aligner system achieved the desired treatment goals and ensured ease of use and comfort for the patient throughout the course of the treatment.